

Ideas



Filters

Different coloured light sources not effective on solid objects.

Animation lacking scenes

Implementing X-ray in graphics not the same as real-life. Some animation scenes might not look so different from a normal shadow (ie under water shadow)

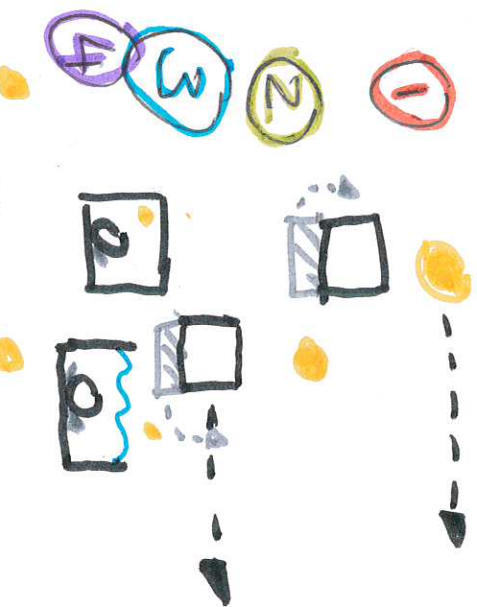
Categorise

Animating light source

Animated shadow/object

Differing surfaces/object opacity

Multiple sources of lights



Combine/Regime

Combine having multiple lights with in a scene with other categories
Have differing objects move across the same light source easily
Have the sun/light source animation scenes with a filter (stained glass)



Question

Animate an object which moves between different filters (glass, water etc) to show the differences

Animation of a light source around an object (chair, room, or etc)

Animation of an object around a light source (moving chair, room, or etc)

Ideas



Different coloured light sources not effective on solid objects.

Animation lacking scenes

Implementing X-ray in graphics not the same as real-life. Some animation scenes might not look so different from a normal shadow (ie under water shadow)

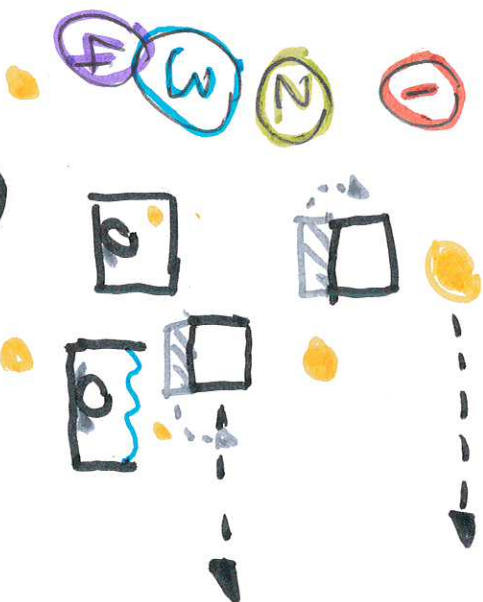
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Combine/Regime

Combine having multiple lights with in a scene with other categories
Have differing objects move across the same light source easily
Have the sun/light source animation scenes with a filter (stained glass)



Question

Animate an object which moves between different filters (glass, water etc) to show the differences

Animation of a lightsource around an object (chair, room, or off)

Animation of an object around a lightsource (moving chair/room around)

Details:

Name: Michael Smith

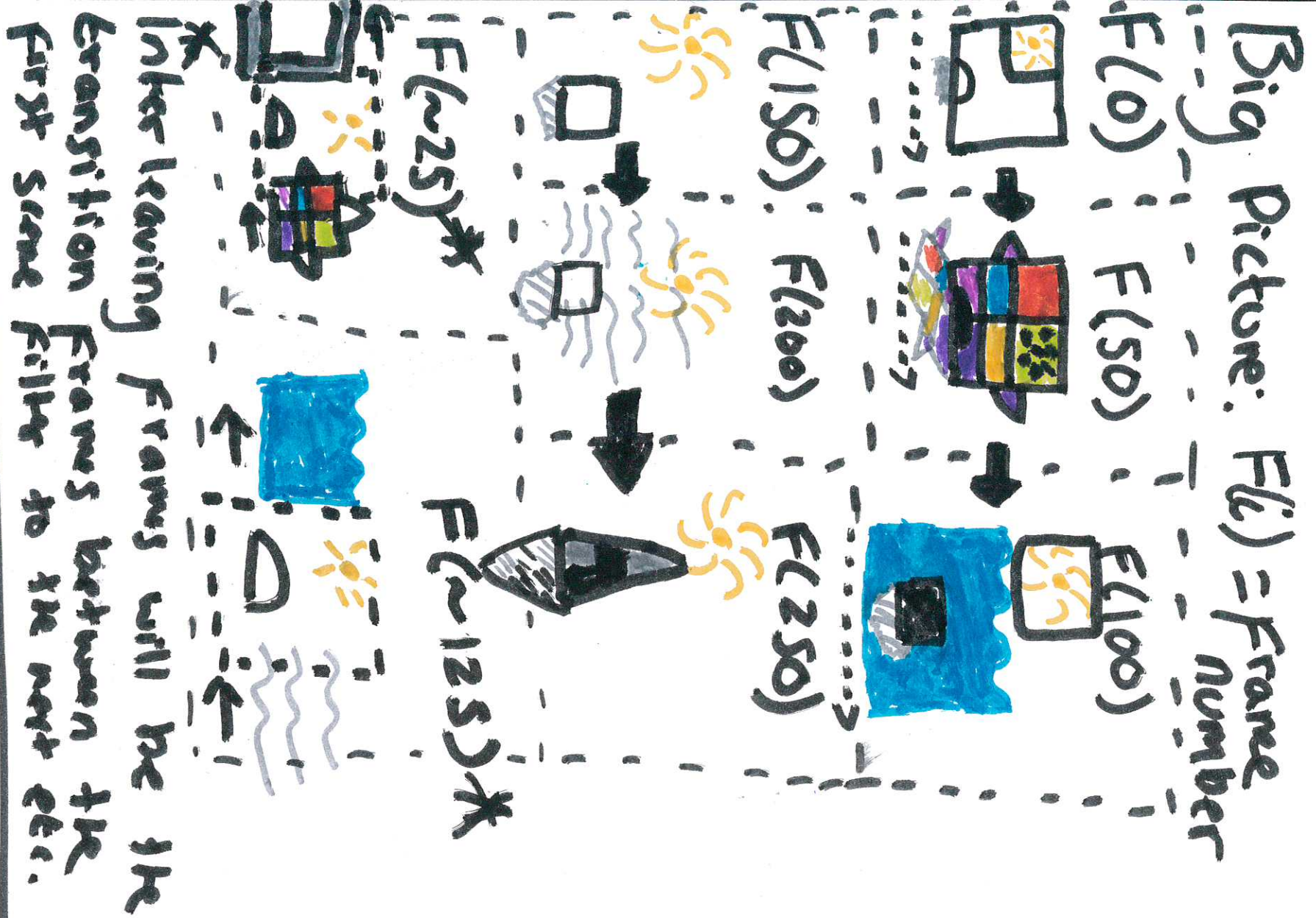
Date: 26 Oct

Sheet: 2

Title: Animated object between a scene with different/multiple features

Operations:

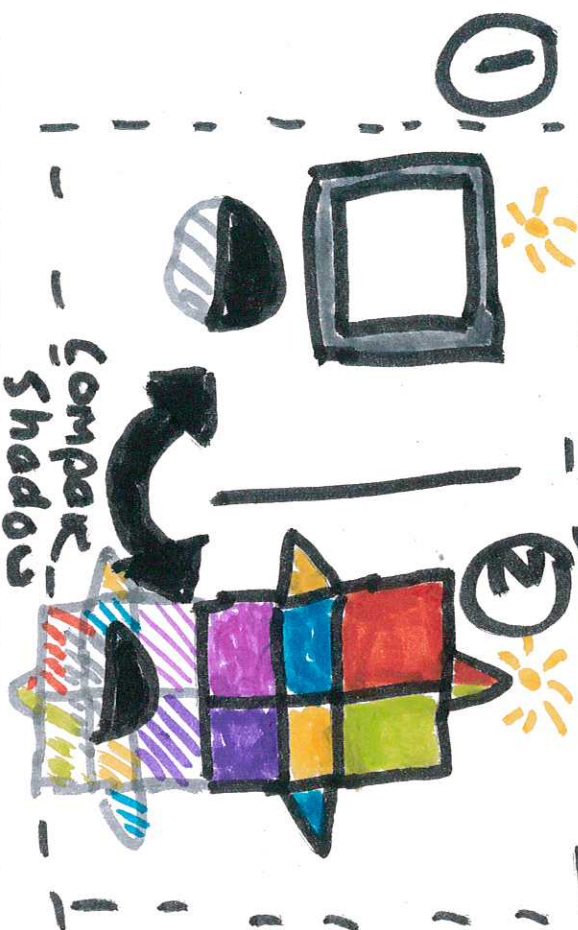
- Flat shadow
- Shadow behind clear glass
- Shadow behind coloured glass
- Shadow through water
- Shadow through fog
- Scenes "slide" across the viewport
- Light source remains constant



In the leaving frames will be the transition frames between the first scene filter to the next etc.

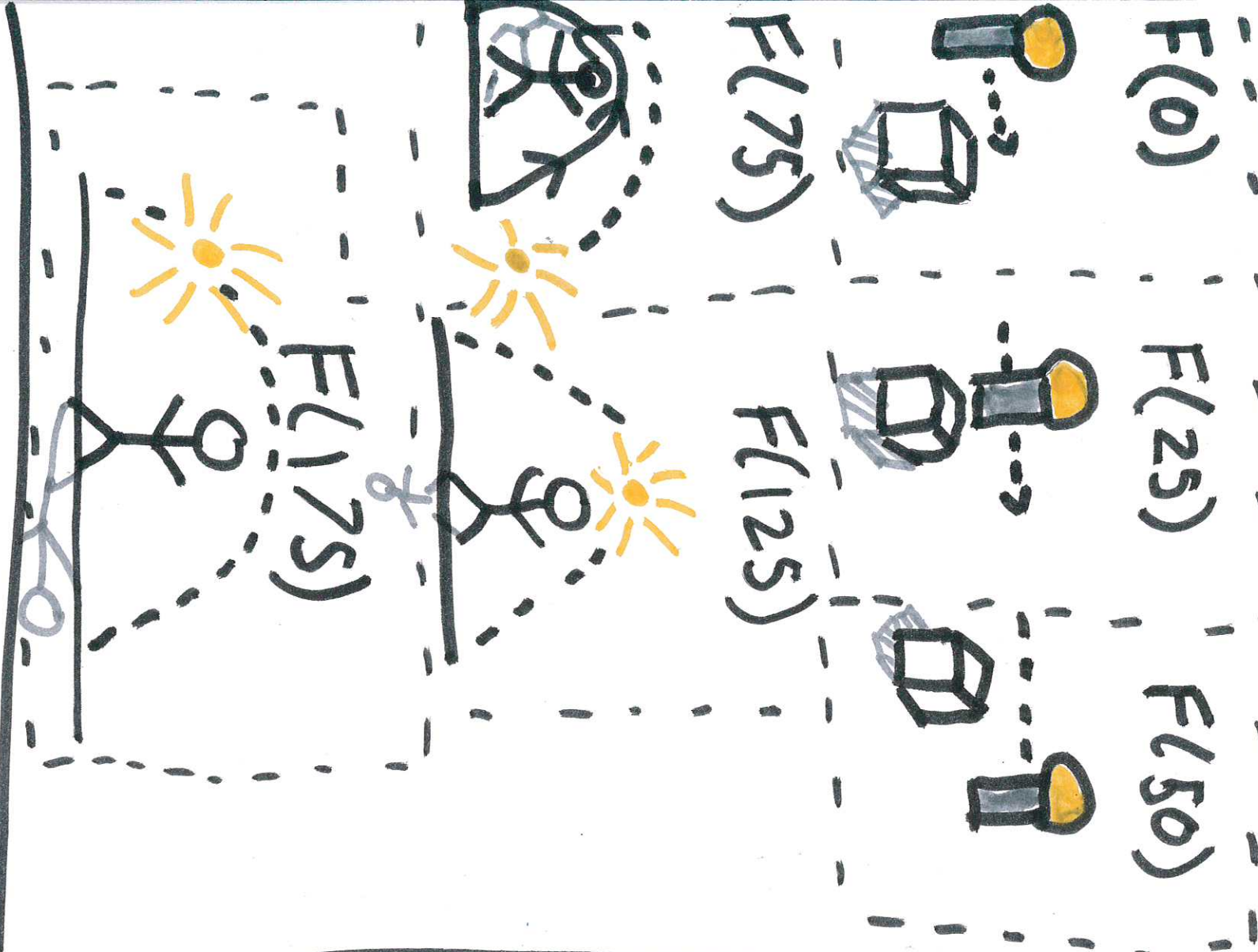
Part i:

The instant contrast between different scene filters. Allows easy comparison



Pro's:
Gives a large representation of filters
Shows how/when different filters effect a shadow
Con's:
No animated light source
Some filters might not have a large contrast.

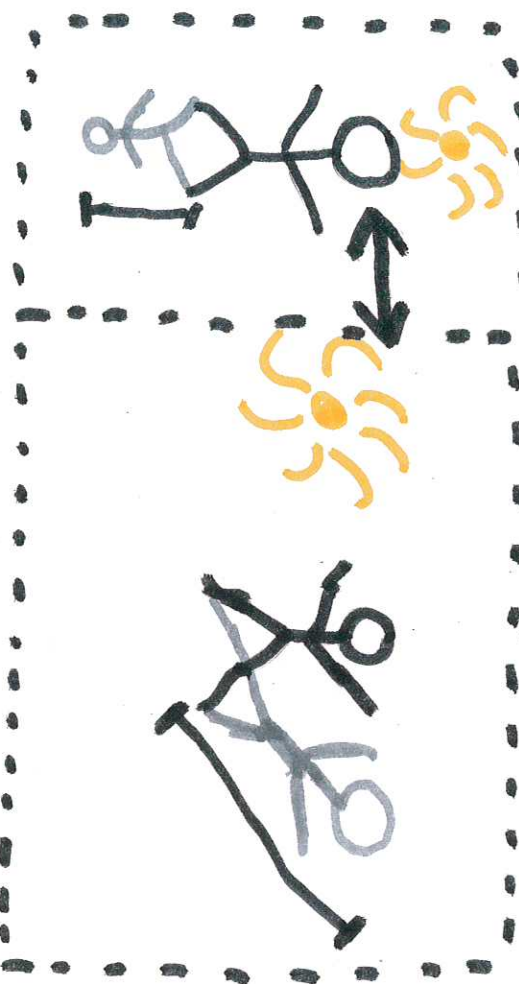
Big Picture: $F(i) = \text{frame number}$



Part I:

The differing effects

a light source has on a shadow as it is animated across the screen (short / long shadows)



Details:

Name: Michael Smith

Date: 27 Oct

Sheet: 3

Title: Shadows - animating a light source around an object and observing the shadow projection.

Functions:

- light source translating across a single axis
- light source remaining parallel to the object
- observing how the shadow "rotates" around the object
- light source "rotates" around the object
- translates on multiple axis (e.g. $y = x^2 - 1$ is used in the scene)
- observing how the shadow grows and shrinks depending on the position of the light.

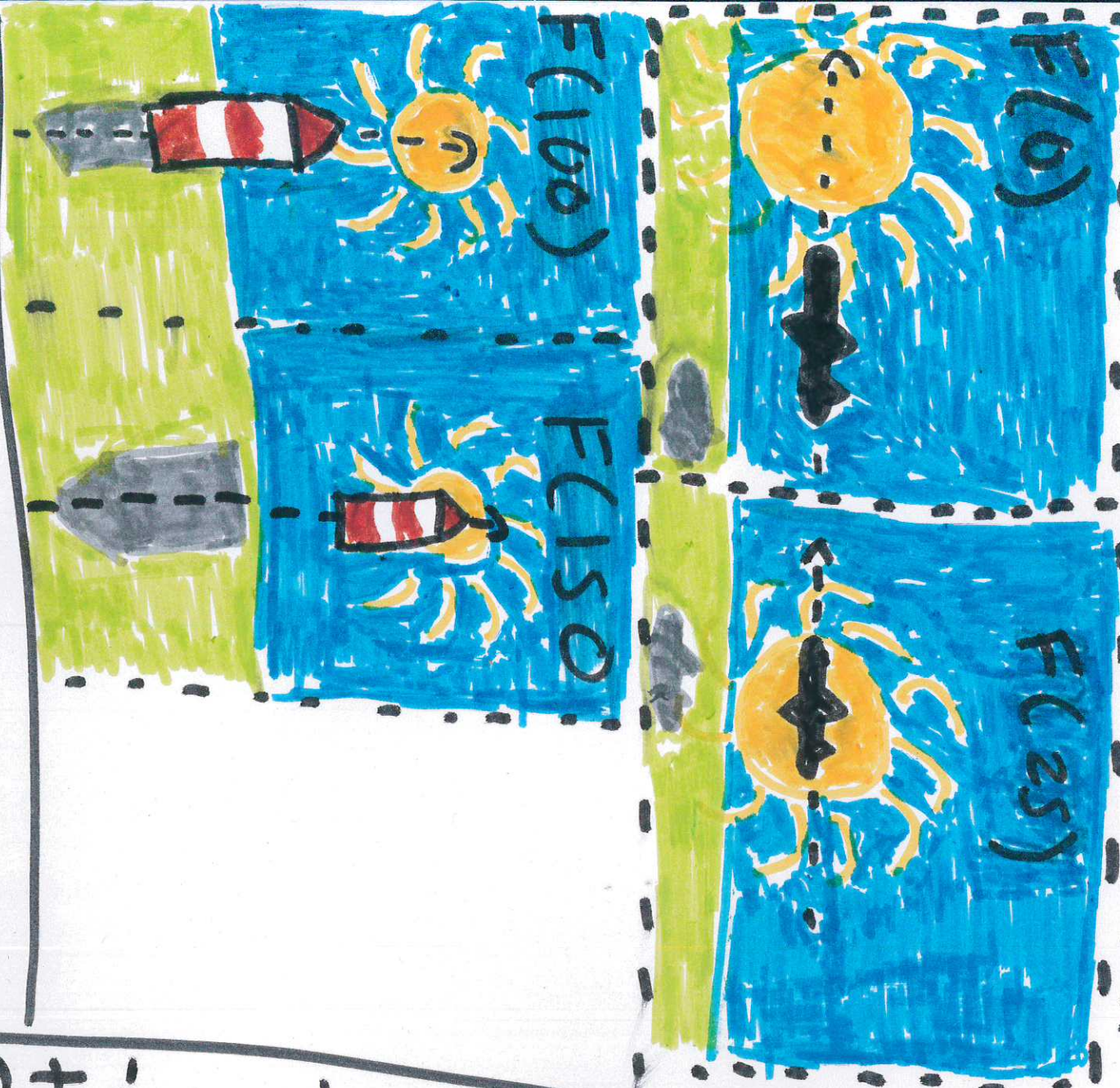
Pro's:

can see the effects of an animated light source on a non-animated object

Con's

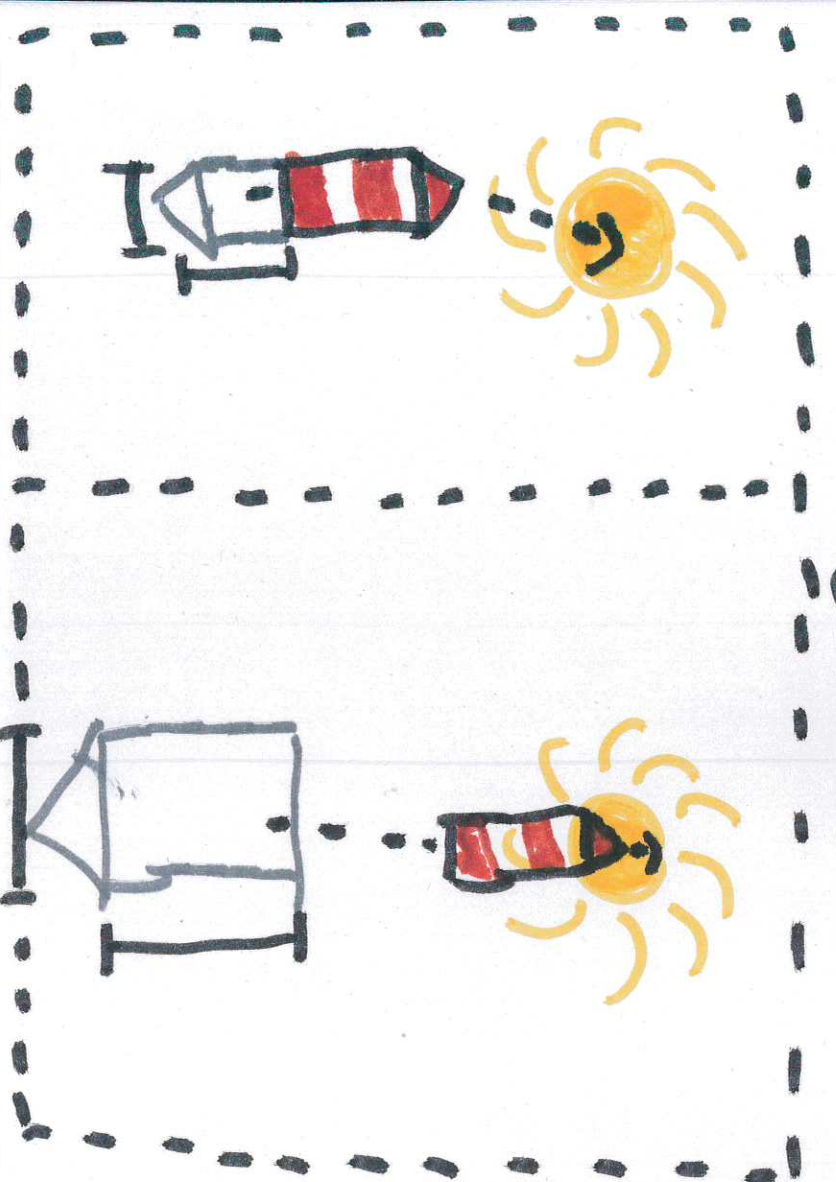
Repetitive results (left side is a mirror of right)

Big Picture: $F(i) = \text{Frame number}$



Part 1:

The expansion and manipulation of a shadow as an object animates to or around a light source.



Details:

Name: Michael Smith

Date: 27 Oct

Sheet: 4

Title: Shadows -
Objects animating
around a light source(s).

Operations:

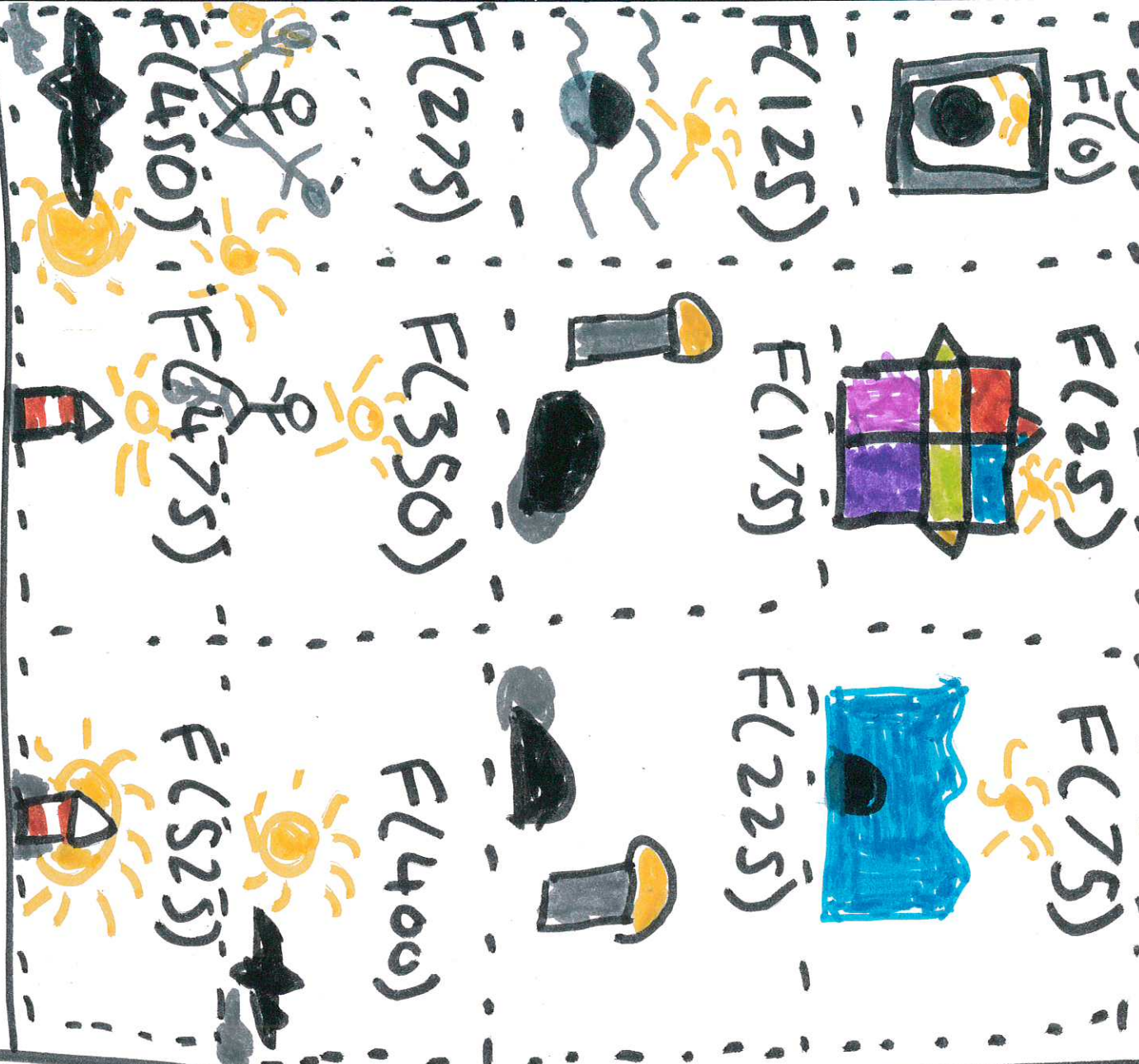
- Stationary light source
- Object translating parallel to the light source
- Object translating towards or away from a light source
- Parts of the object - to animate independently from main translation

Pro's
Get to observe the
expansion/contraction
of shadows

Con's

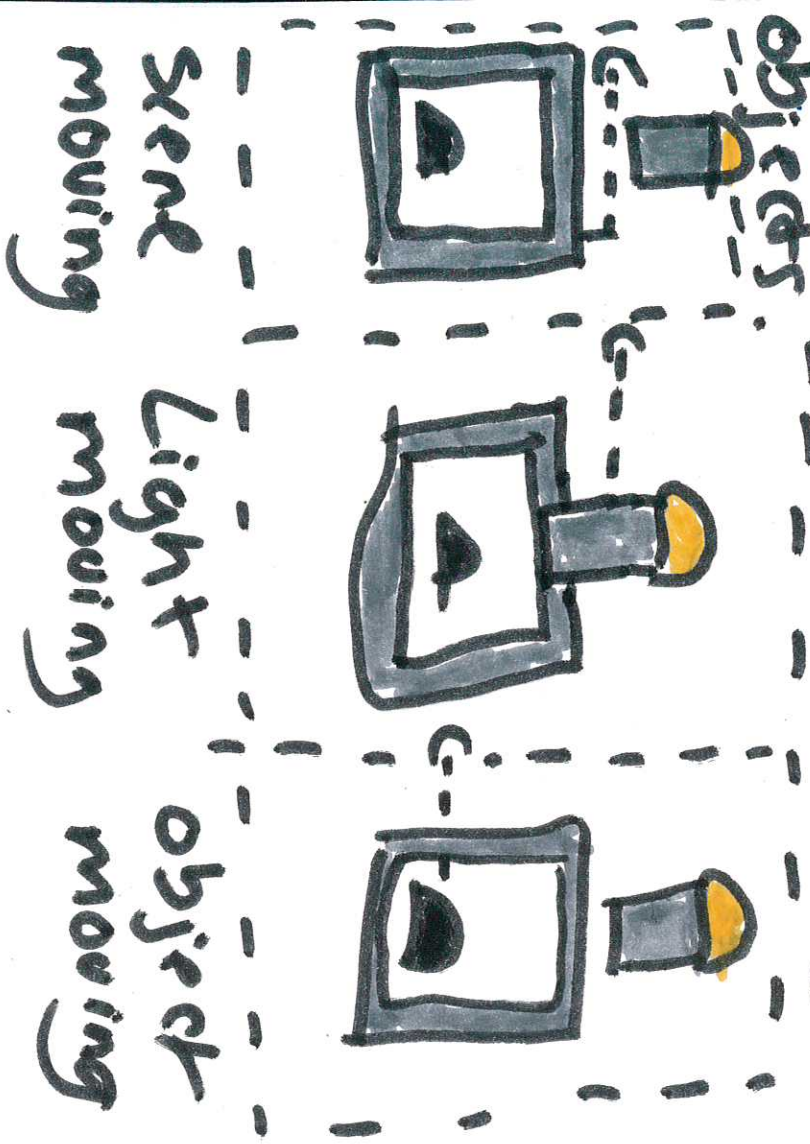
Stagnant scene as
the light source does
not move.

Big Picture: $F(i) = \text{Frame number}$



Part 1:

Consolidation of the previous three sheets, cycling through scene filters, animating light sources and translating objects.



Details:

Name: Michael Smith
Date: 27 Oct
Sheet: 5

Title: Shadows -

Consolidation of three previous ideas of focus on scene, object and light.

Operations:

- Scenes 'slide show' like films, onto the screen
- Light source translates/rotates around an object
- Object translates/rotates around a light source
- Multiple options can be used (object + scene moving or scene + light moving)
- Multiple of light sources and objects used in a single scene.

Details:

Focusing on computing shadows on a surface/Plane. Able to cast Fake shadows. Compute soft shadows for realism. Light-weight and not very complex scene to ease the computation of a depth test.